



GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Master of Engineering

Level: PG

Branch: Construction Engineering and Management

Subject Code: ME02014031

Subject Name: Project Management Software Laboratory

w.e.f. Academic Year:	2024-25
Semester:	2
Category of the Course:	Professional Elective Course

Prerequisite:	Project Management Techniques
Rationale:	<p>Project management software is used to plan, organize, and allocate resources for managing projects. It helps teams collaborate and keep track of the project's progress while clearly defining tasks and responsibilities.</p> <p>The objective is to provide hands-on experience in using software like Microsoft Project and Primavera software for project planning, scheduling, and control. Students will learn to apply the software's functionalities to real-world construction management scenarios, enhancing their ability to manage complex projects efficiently.</p>

Course Outcome:

After Completion of the Course, Student will able to:

No.	Course Outcomes
01	Summarize the fundamental features and interface of MS Project
02	Summarize the fundamental features and interface of Primavera
03	Apply Software tools for creating and managing project schedules
04	Analyze project schedules and resource allocations using Software
05	Design comprehensive project plans incorporating timelines, resources, and costs using Software

Teaching and Examination Scheme:

Teaching Scheme(in Hours)			Total Credits L+T+(PR/2)	Assessment Pattern and Marks				Total Marks
L	T	PR		C	Theory		Tutorial/Practical	
			ESE (E)		PA/ CA (M)	PA/CA(I)	ESE (V)	
3	0	2	4	70	30	20	30	150



GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Master of Engineering

Level: PG

Branch: Construction Engineering and Management

Subject Code: ME02014031

Subject Name: Project Management Software Laboratory

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1	Introduction to MS Project and Primavera Overview of Project Management Software, Introduction to MS Project Interface, Creating a New Project, Setting Up Project Information (Start Date, Calendar, etc.)	07	17
2	Project Planning and Scheduling Defining Project Tasks and Durations, Creating and Organizing Work Breakdown Structure (WBS), Setting Dependencies and Relationships between Tasks, Applying Constraints and Deadlines	08	17
3	Resource Management Adding and Managing Resources (Work, Material, and Cost Resources), Assigning Resources to Tasks, Resource Allocation and Levelling, Identifying and Resolving Resource Over allocations	08	16
4	Cost Management Defining Project Costs (Fixed, Variable, and Resource Costs), Assigning Costs to Tasks and Resources, Tracking Project Costs, Performing Earned Value Analysis (EVA)	08	16
5	Monitoring and Controlling Project Performance Tracking Progress and Updating Project Status, Variance Analysis (Schedule and Cost Variances), Implementing Corrective Actions, Using Baselines for Performance Measurement	07	16
6	Reporting and Presentation Generating Project Reports (Progress, Cost, Resource, etc.), Customizing Reports and Views, Creating Gantt Charts and Other Visual Representations Exporting Data and Sharing Project Information	07	16
	Total	45	100

Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
20	30	30	10	10	0

Where R:Remember; U:Understanding; A:Application, N:Analyze and E:Evaluate C:Create(as per Revised Bloom's Taxonomy)



GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Master of Engineering

Level: PG

Branch: Construction Engineering and Management

Subject Code: ME02014031

Subject Name: Project Management Software Laboratory

References/Suggested Learning Resources:

1. Biafore, B., Riopel, J. Practical Project Management with Microsoft Project. United States: Cold Press Publishing, 2021.
2. Lewis, C., Chatfield, C., Johnson, T. Microsoft Project 2019 Step by Step. United States: Pearson Education, 2019.
3. Project Management Using Microsoft Project 2016: A Training and Reference Guide for Project Managers Using Standard, Professional, Server, Web Application and Project Online" by Gus Cicala
4. Lewis, C., Chatfield, C., Johnson, T. Microsoft Project 2019 Step by Step. United States: Pearson Education, 2019.

Web resources :

1. Microsoft Project - Tutorial for Beginners in 14 MINUTES! [COMPLETE] (youtube.com)
2. MS Project Tutorial 1 Introduction (youtube.com)
